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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/698,256 | 10/31/2003 | Todd M. Baranek | P01031US2A(P370) | 2946 |

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Chief Intellectual Property Counsel
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| EXAMINER |
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POULOS, SANDRA K

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| ART UNIT | PAPER NUMBER |
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1714

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,256

Applicant(s)

BARANEK, TODD M.

Examiner

Sandra K. Poulos

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/26/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is under 50 words.

Examiner suggests at least another sentence disclosing the other embodiment with the inorganic silica filler, as in claims 8 and 14, or perhaps disclosing the embodiments in claims 2 and 9; however, do not add any new matter. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-4 and 9-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 4 and 11 of US 6,734,245 (Baranek). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Baranek '245 discloses a rubber compound for tire treads, the composition comprising: at least one elastomer; from about 5 to about 80 parts by weight bismuth trioxide per 100 parts by weight elastomer; and from about 30 to about 80 parts by weight carbon black per 100 parts by weight elastomer, where the carbon black is a tread-trade carbon black (claim 1), a rubber composition for tire treads, the composition comprising: an elastomer; from about 5 to about 80 parts by weight bismuth trioxide per 100 parts by weight elastomer; and from about 30 to about 80 parts by weight carbon black per 100 parts by weight elastomer, where the carbon black is a tread-grade carbon black (claim 2), an improved tire tread of the type that includes a vulcanized rubber having dispersed therein a tread-grade carbon black, the improvement comprising the presence of bismuth trioxide dispersed within the vulcanized rubber (claim 4), and a rubber composition for tire treads, the composition comprising: an elastomer; from about 5 to about 80 parts by weight bismuth trioxide per 100 parts by weight elastomer; and from about 30 to about 80 parts by weight carbon black per 100 parts by weight elastomer, where the carbon black has a surface area of about $119 \text{ m}^2/\text{g}$ (claim 11)

The present claims disclose a tire tread with a vulcanized elastomer a while the claims of Baranek '245 refer to a tire tread with an elastomer. However, it would have

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been obvious to one of ordinary skill in the art that the elastomer in the claims of Baranek '245 are vulcanized in order for the composition to be a tire tread and thus fall within the scope of the present claims and one of ordinary skill in the art would have arrived at the claimed invention.

4. Claims 1-4 and 9-11 are directed to an invention not patentably distinct from claims 1-2, 4 and 11 of commonly assigned US 6,734,245. Specifically, although the conflicting claims are not identical, they are not patentably distinct for the reasons set forth in paragraph 3 above.

5. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned US 6,734,245 (Baranek) discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon

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the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

6. Claims 1-4 and 9-11 are rejected under 35 U.S.C. 103(a) as being obvious over Baranek (US 6,734,245).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

For an explanation of the rejection, see paragraph 3 above.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More particularly, claim 16 lacks antecedent basis for reciting a "metal oxide" when the parent claim recites "bismuth trioxide."

It is to be noted that for the purposes of examination, the examiner has assumed that the metal oxide is bismuth trioxide.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 7, 9-10, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Fusco et al (US 2,897,164) in view of Sosnogorsk (carbon black material data sheet 1).

Fusco '164 discloses a vulcanizable rubber mixture (col 1, lines 11-18) that can be used for rubber tires (col 2, lines 8-16; col 5, lines 66-67). The composition is rubber, bismuth oxide (2-30 parts by weight), and conventional fillers and curing agents (col 1, lines 32-43; col 4, lines 40-75). In example 1, there are 50 parts by weight carbon black

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SRF in the composition with 100 parts by weight total rubber, 5 parts by weight Bi_2O_3 , and 5 parts by weight of the filler zinc oxide (col 4, lines 40-75).

Fusco '164 discloses a SRF carbon black. SRF carbon blacks are of the N700 series and have DBP Absorption of 65 ± 5 to $72 \pm 4 \text{ cm}^3/100\text{g}$ (Sosnogorsk pgs 1-3). Therefore, it is examiner's position that the carbon black disclosed by Fusco '164 would be a tread-grade carbon black.

Therefore, Fusco '164 anticipates the cited present claims.

9. Claims 1-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Baranek (US 2002/0193490) in view of China Jiangsu (carbon data sheet 2).

Baranek '490 discloses a vulcanized tire tread composition of an elastomer, bismuth trioxide from 5-80 phr (paragraph 31, claim 20), and fillers preferably from about 30 to about 80 phr (paragraph 41). Table 4 shows examples of formulations with rubber, carbon black N234, silica, Bi_2O_3 . Carbon black N234 meets the required surface area and DBP properties specified in the present claims (carbon black data sheet 2).

Therefore, Baranek anticipates the cited present claims.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davison et al (US 3,239,481) in view of Sandstrom et al (US 6,046,266).

Davison '481 discloses a vulcanizable composition of an elastomer, silica, and a metal oxide such as bismuth oxide (col 2, 4-5, 7). Bismuth oxide is present from 2 to 20 phr or preferable 4 to 10 phr (col 5). Silica is in amounts of 30 to 90 phr (col 4). Carbon black may be used as the reinforcing ingredient (col 7).

Davison '481 does not teach a specific type of carbon black nor a specific amount.

Sandstrom '266 discloses a tire tread composition comprised of elastomers, silica, and carbon black (col 1-3). Sandstrom '266 discloses that the carbon black must have a DPB from 100 to 150 cc/100g and representative of such a carbon black would be N234 (col 5). Carbon black N234 meets the required surface area and DBP properties specified in the present claims (see paragraph 9 above). In his examples, the carbon blacks are used in the amount of 30 phr (Table 1 and 3).

It would have been obvious to one of ordinary skill in the art to use an N234 carbon black as the carbon black in Davison '481 and use the same amount, thereby obtaining the cited present claims. One would have been motivated to do so because Sandstrom '266 discloses that the carbon black and the amounts used in his invention promotes a relatively high modulus and good abrasion resistance for a tire tread composition (col 4, lines 30-34). One would have a reasonable expectation of success because both composition are used for tire treads and comprise elastomers, silica, and carbon black.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Linder et al (US 4,810,739) discloses a crosslinked rubber molding composition for such application as the automotive industry including with Bi₂O₃ and carbon black.

Jones (US 2,358,717) discloses the activating effect of Bi₂O₃ in vulcanized rubbers and adds carbon black to the composition.

Stueber (US 3,451,458) discloses vulcanized tires with silica, and metal oxides such as bismuth oxide. Carbon black is an optional ingredient.

Rector et al (US 6,251,513) in the claims discloses a crosslinked elastomer composition with carbon black and bismuth oxide.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571)

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272-6428. The examiner can normally be reached on M-F 7:00-4:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKP

Sandra K. Poulos
12/12/05

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